

### IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A location tracking system for building a geographic location database of network nodes in a computer network comprising:

a trace engine module configured to send trace Id commands to a plurality of user terminals, ~~wherein said user terminals are actively coupled to a server node and~~ said trace engine module ~~to obtain an~~ obtains IP address of each of said user terminals and its corresponding geographic location; and~~[[,]]~~

a ~~first~~ database ~~to store:~~

IP addresses obtained by said trace engine module, ~~and their~~

a corresponding geographical location of the IP addresses obtained by said trace engine module,[[;]] and ~~a second database configured to store~~

a set of physical connections between the IP addresses obtained by said trace engine module.

2. (Currently Amended) A location tracking system in accordance with claim 1, wherein a geographic location of each of said user terminals is stored in a user profile record, previously provided by a user of said user terminal.

3. (Currently Amended) A location tracking system in accordance with claim 1, wherein the trace engine module is to send the trace Id commands to the plurality of user terminals connected to said server is a chat room server.

4. (Currently Amended) A location tracking system in accordance with claim 1, wherein the trace engine module is to send the trace Id commands to the plurality of user terminals connected to said server is a newsgroup server.

5. (Currently Amended) A location tracking system in accordance with claim 2, wherein said ~~first~~ database stores ~~[[a]]~~ information corresponding to a plurality of Internet service providers

along with their universal resource locator (URL) and geographic location.

6. (Currently Amended) A location tracking system in accordance with claim 5 wherein said database includes ~~further comprising~~ a database of identifiable textual patterns corresponding to known host names and a geographical location corresponding to each one of said identifiable textual patterns.

7. (Currently Amended) A location tracking system in accordance with claim 6 wherein said database of identifiable textual patterns stores patterns corresponding to known host names, along with their corresponding cities and states abbreviations, so as to allow said tracking system to determine the geographic location of a host node when host name of said node includes ~~contains~~ one of said identifiable textual patterns and at least one of said state and city abbreviations.

8. (Original) A location tracking system in accordance with claim 6 further comprising a database management module configured to estimate the geographical location of an end user IP address obtained by said trace engine module.

9. (Currently Amended) A location tracking system in accordance with claim 8 wherein the trace engine module is to ~~further comprising a web site coupled to said location tracking system, so as to~~ determine the geographical locations of end users who access a particular said web site.

10. (Original) A location tracking system in accordance with claim 9 further comprising a URL switch configured to provide a URL address to an end user terminal who accesses said web site wherein said URL address is associated with the geographical location of said user terminal.

11. (Currently Amended) A location tracking system in accordance with claim 9 wherein the database is ~~further comprising a database to~~ store geographical locations of an end user who accessed said web site so as to prepare corresponding reports.

12. (Currently Amended) A method for building a geographic location database of network nodes in a computer network comprising:

sending trace Id commands to a plurality of user terminals; ~~wherein said user terminals are actively coupled to a server node so as to obtain~~

obtaining an IP address of each of said user terminals and its corresponding geographic location; and[[,]]

storing in a ~~first~~ database, IP addresses obtained along with their corresponding geographical location[[;]] and ~~storing in a second database,~~ a set of physical connections between the IP addresses obtained.

13. (Currently Amended) The method in accordance with claim 12, wherein obtaining the IP address of each of said user terminals and its corresponding geographic location includes further comprising the step of retrieving information relating to geographic location of each of said user terminals from a user profile record, wherein said information was previously provided by a user of said user terminal.

14. (Currently Amended) The method in accordance with claim 12 wherein sending trace Id commands includes further comprising the step of sending a trace Id command to terminals communicating with a chat room server.

15. (Currently Amended) The method in accordance with claim 12 wherein sending trace Id commands includes further comprising the step of sending a trace Id commands to terminals communicating with a [[a]] newsgroup server.

16. (Currently Amended) The method in accordance with claim 13 wherein storing in said database includes further comprising the step of storing in said ~~first database~~ information corresponding to a plurality of Internet service providers along with their universal resource locator (URL) and geographic location.

17. (Currently Amended) The method in accordance with claim 16 wherein storing in said

database includes further comprising the step of storing in a third database identifiable textual patterns corresponding to known host names and a geographical location corresponding to each one of said identifiable textual patterns.

18. (Currently Amended) The method in accordance with claim 17 wherein storing in said database includes further comprising the step of storing in said database of identifiable textual pattern, a list of geographical location abbreviations each corresponding to at least one of said textual patterns.

19. (Currently Amended) The method in accordance with claim 17 wherein storing in said database includes further comprising the step of storing in said database of identifiable textual patterns, domain name of company networks, along with their geographical locations wherein the network nodes of the company networks reside.

20. (Currently Amended) The method in accordance with claim 16 wherein obtaining the IP address of each of said user terminals and its corresponding geographic location includes further comprising the step of estimating the geographical location of an end user IP address obtained in response to said trace Id commands.

21. (Currently Amended) The method in accordance with claim 19 wherein obtaining the IP address of each of said user terminals and its corresponding geographic location includes further comprising the step of determining the geographical locations of end users who access a web site.

22. (Currently Amended) The method in accordance with claim 20 wherein obtaining the IP address of each of said user terminals and its corresponding geographic location includes further comprising the step of providing a URL address to an end user terminal who accesses said web site wherein said URL address is associated with the geographical location of said user terminal.

23. (New) A location tracking system for building a geographic location database of network nodes in a computer network comprising:

a trace engine module configured to send commands to a plurality of user terminals, the trace engine module to obtain an IP address of each of the user terminals and its corresponding geographic location in response to the sent commands, the trace engine module to employ a statistical analysis to determine the geographic location of at least one server node associated with the plurality of user terminals, the statistical analysis being based on a number of user terminals and their corresponding geographic location; and

a database management module to determine a percentage of user terminals connected to a first IP address from a particular geographic location, the trace engine module being to assign the particular geographic location to the first IP address when the percentage is above a predefined threshold.

24. (New) The system of claim 23 further comprising a database having a stored IP address associated with a target host, a target host n including a server node that acts as a local server to the user terminal, and the database management module to obtain an IP address and geographic location of the host that is closest to target host n.

25. (New) The system of claim 23 wherein the database management module is to obtain an IP address of the target host n-1, connected to target host n, from the database, when the IP address of the target host n is not identified in the database.

26. (New) A system comprising:

a location tracking system including a trace engine module, the trace engine module to send a trace Id command to a user terminal to map a network route that defines a connection between the user terminal and the location tracking system; and

a database management module to obtain the geographic location of the user terminal and an IP address of the user terminal in response to the sent commands,

wherein the location tracking system is to:

store connection information including host nodes employed in the network route,  
determine a number of user terminals connected to each host node,

employ a statistical analysis to determine a geographical location of the host nodes based on the number of user terminals connected to each host node and their respective geographical locations, and

store the geographical location and the associated IP address for each of the host nodes.

27. (New) The system of claim 26 wherein the database management module is to determine a percentage of user terminals connected to a particular IP address from a particular geographic location to assign and store the particular geographic location to the particular IP address when the percentage is above a predefined threshold.

28. (New) The system of claim 27 further comprising a database to store the particular IP address associated with the particular geographic location.

29. (New) A system comprising:

a location tracking system including a trace engine module, the trace engine module to send a trace Id command to a host to map a network route that defines a connection between the host and the location tracking system; and

a database management module to obtain the geographic location of the host and an IP address of the host in response to the sent commands,

wherein the location tracking system is to:

store connection information including nodes employed in the network route,

determine a number of hosts connected to each node,

employ a statistical analysis to determine the geographical location of the nodes based on the number of hosts connected to each node and their respective geographical locations, and

store the geographical location and the associated IP address for each of the nodes.

30. (New) The system of claim 29 wherein the database management module is to determine a percentage of hosts connected to a particular IP address from a particular geographic location to assign the particular geographic location to the particular IP address when the percentage transgresses a predefined threshold.

31. (New) The system of claim 30 further comprising a database to store the particular IP address associated with the particular geographic location.